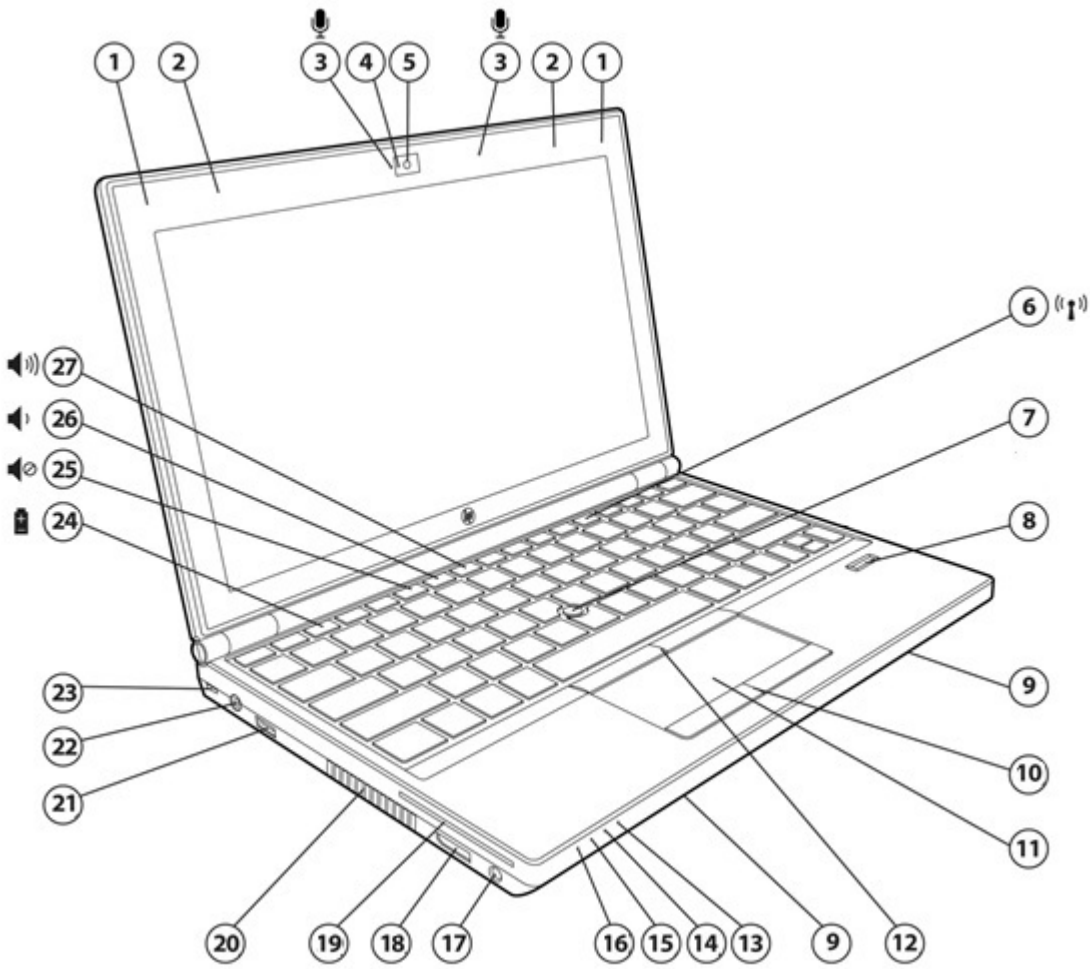
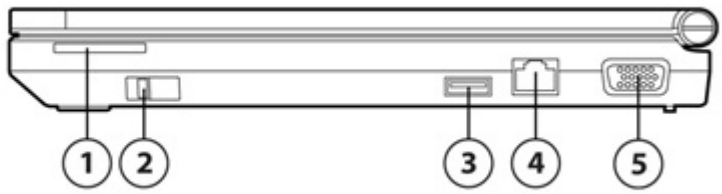
Overview



1. WLAN antennas (2)
2. WWAN antennas (2)
3. Dual-microphone array*
4. Webcam LED indicator (with optional webcam)
5. Optional 720p HD webcam
6. Wireless on/off button with LED indicator
7. Pointstick
8. Optional HP Fingerprint Sensor
9. Stereo speakers
10. Touchpad pick buttons
11. Touchpad
12. Pointstick buttons (2)
13. Drive activity / HP 3D DriveGuard LED indicator
14. Battery charging LED indicator
15. Power/standby LED indicator
16. Wireless on/off LED indicator
17. Audio-out (headphone) jack/Audio-in (microphone) jack
18. DisplayPort
19. Smart card reader
20. Vent
21. USB 3.0 port
22. Power connector
23. Security cable slot
24. HP Power Assistant function key
25. Volume mute function key
26. Volume down function key
27. Volume up function key

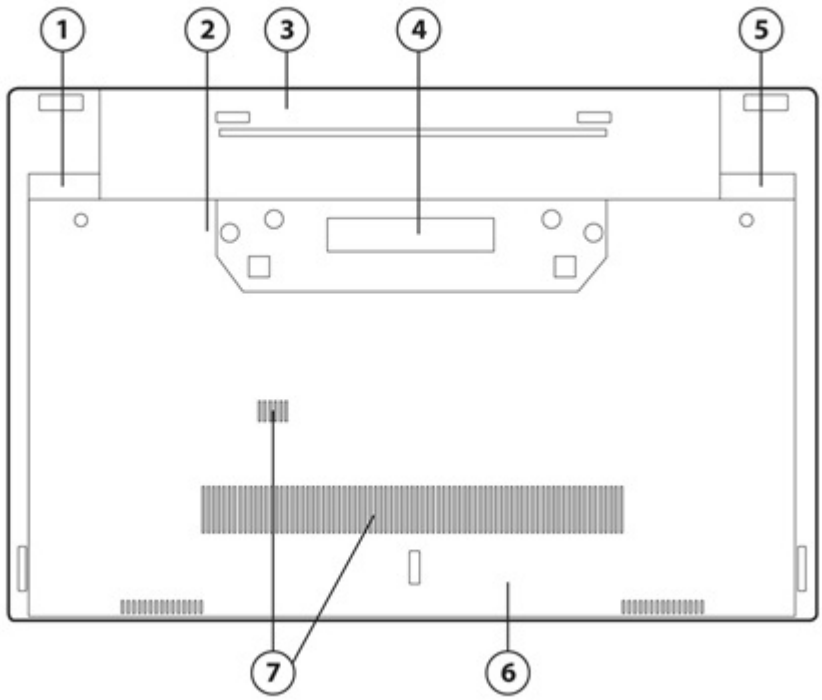
Overview

Right View



1. Media Card Reader
2. Power on
3. USB 3.0 charging port
4. RJ-45 (network) jack
5. External monitor port

Bottom View



1. Service cover release
2. SIM card slot (in battery bay)
3. Battery bay
4. Docking station connector
5. Battery release latch
6. Hard drive bay and memory module compartments
7. Vents

Overview

At A Glance

- Windows 8 versions, Windows 7 versions or FreeDOS
- 3rd Generation Intel® Core™ i7, i5 and i3 Dual-Core™ with Turbo Boost Technology
- Intel® vPro™ technology (optional) enables you to remotely monitor, diagnose, and repair PCs over the network, even if a system's OS is inoperable or it is powered off
- Integrated Intel® HD Graphics 4000
- Widescreen LED-backlit HD display (1366 x 768)
- Full sized, Chiclet, spill-resistant keyboard with drains
- Touchpad with scroll zone and gestures support
- 1.04 Inch (26.5 mm) thin profile
- Weight starting at 2.94 lb (1.33 kg)
- High Definition Audio with SRS Premium Sound PRO, stereo speakers, integrated dual-microphone array and optional 720p HD Webcam
- Easily hot dock with one of the optional HP docking stations
- Choice of 6-cell or 4-cell battery to customize weight, run-time, and battery life to your needs
- Security features including a Security lock slot and TPM 1.2 Embedded Security Chip
- Wireless connectivity:
  - Optional integrated wireless mobile broadband module support
  - Integrated Intel® Centrino® 802.11 a/b/g/n 2x2, Intel 802.11a/b/g/n 2x2 with Bluetooth® v4.0 combo, Atheros 802.11a/b/g/n 2x2 with Bluetooth® v4.0 combo, Broadcom 801.11b/g/n 1x1 with Bluetooth® v4.0 combo
  - Bluetooth®
- Choice of 7200 rpm user-removable hard drive up to 500 GB with HP 3D DriveGuard protection, or 128/180/240 GB Solid State Drive or 256 GB SED Solid State Drive
- Standard commercial 1 year warranty

Features

OPERATING SYSTEM

Preinstalled	Windows 8 Pro 64* Windows 7 Professional (available through downgrade rights from Windows 8 Pro)** Windows 8 64* Windows 7 Professional 32*** Windows 7 Professional 64*** Windows 7 Home Premium 32*** Windows 7 Home Premium 64*** Windows 7 Home Basic 32*** FreeDOS
Supported	Windows 7 Enterprise 32*** Windows 7 Enterprise 64*** Windows 7 Ultimate 32*** Windows 7 Ultimate 64*** Windows XP Professional 32
Certified	SUSE Linux Enterprise Desktop

* Not all features are available in all editions of Windows 8. Systems may require upgraded and/or separately purchased hardware, drivers and/or software to take full advantage of Windows 8 functionality. See http://www.microsoft.com for details.
** This system is preinstalled with Windows® 7 Pro software and also comes with a license and media for Windows 8 Pro software. You may only use one version of the Windows software at a time. Switching between versions will require you to uninstall one version and install the other version. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.
*** Not all features are available in all editions of Windows 7. This system may require upgraded and/or separately purchased hardware to take full advantage of Windows 7 functionality. See http://www.microsoft.com/windows/windows-7/ for details.

PROCESSOR

3rd Generation Intel® Core™ i7-3687U (2.1 GHz, 4 MB L3 cache, 2 cores)*
Up to 3.30 GHz with Intel Turbo Boost Technology
3rd Generation Intel® Core™ i7-3667U (2.0 GHz, 3 MB L3 cache, 2 cores)*
Up to 3.20 GHz with Intel Turbo Boost Technology
3rd Generation Intel® Core™ i5-3437U (1.9 GHz , 3 MB L3 cache, 2 cores)*
Up to 2.90 GHz with Intel Turbo Boost Technology
3rd Generation Intel® Core™ i5-3427U (1.8 GHz, 3 MB L3 cache, 2 cores)*
Up to 2.80 GHz with Intel Turbo Boost Technology
3rd Generation Intel® Core™ i5-3337U (1.8 GHz, 3 MB L3 cache, 2 cores)*†
Up to 2.70 GHz with Intel Turbo Boost Technology
3rd Generation Intel® Core™ i5-3317U (1.7 GHz, 3 MB L3 cache, 2 cores)*†
Up to 2.60 GHz with Intel Turbo Boost Technology
3rd Generation Intel® Core™ i3-3227U (1.9 GHz, 3 MB L3 cache , 2 cores)*†
3rd Generation Intel® Core™ i3-3217U (1.8 GHz, 3 MB L3 cache, 2 cores)* †

† Not available with vPro
* Intel's numbering is not a measurement of higher performance.
NOTE: Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.

Features

CHIPSET

Mobile Intel® QM77 Express (vPro support)*
*Some functionality of Intel vPro, such as Intel Active management technology and Intel Virtualization technology, requires additional 3rd party software in order to run. Availability of future "virtual appliances" applications for vPro technologies is dependent on 3rd party software providers. Compatibility with future "virtual appliances", Microsoft Windows required.

INTEL® CORE I5 WITH VPRO/CORE I7 WITH VPRO TECHNOLOGY CAPABLE

Intel® Core i5 with vPro and Core i7 with vPro technology is a selectable feature that is available on units configured with select processors, an Intel Centrino® Advanced-N or Ultimate-N WLAN module and a preinstalled Windows operating system. It provides advances in remote manageability, security, energy efficient performance, and wireless connectivity. Intel Active Management Technology 8.0 (iAMT) offers built-in manageability and proactive security for networked notebook PCs, even when they are powered off* or when the operating system is inoperable. It can help identify threats before they reach the network, isolate infected systems, and update PCs regardless of their power state.
*Requires a Windows operating system, network hardware and software, connection with a power source, and a direct (non-VPN) corporate network connection which is either cable or wireless LAN.

NOTE: Some functionality of Intel® Core i5 with vPro/Core i7 with vPro technology, such as Intel® Active Management technology and Intel® Virtualization technology, requires additional third- party software in order to run. Availability of future "virtual appliances" applications for Intel® Core i5 with vPro/Core i7 with vPro technology is dependent on third- party software providers. Compatibility with future "virtual appliances" is yet to be determined.

GRAPHICS

Integrated:
Intel® HD Graphics 4000

DISPLAY

Internal
11.6" diagonal LED-backlit HD anti-glare (1366 x 768)

External
Up to 32-bit per pixel color depth

DisplayPort
Supports resolutions up to 2560 x 1600, 30-bit color depth at 60 Hz, and full HD (1920 x 1080) monitors, 24-bit color depth at 120 Hz

VGA
Port supports resolutions up to 2048 x 1536 at 75 Hz, and lower resolutions at up to 100 Hz

NOTE: Resolutions are dependent upon monitor capability, and resolution and color depth settings.

Features

STORAGE AND DRIVES

Primary Storage Bay
Hard Drives
320/500 GB 7200 rpm SMART SATA II
500 GB 7200 rpm SMART SATA II Self Encrypting Drive
HP 3D DriveGuard (Windows only)
The hard drive is mounted directly to the notebook frame, reducing the transmission of shock to the hard drive
Solid State Drive
128/180/240 GB SATA III
256 GB SATA III Self Encrypting Drive

NOTE: For hard drives, GB = 1 billion bytes. Actual formatted capacity is less. Up to 15 GB (for Windows 7) and up to 36 GB (for Windows 8) of system disk is reserved for the system recovery software

MEMORY

Standard
DDR3 SDRAM (1600 MHz)
Two SODIMM slots supporting dual-channel memory
2 GB, 4 GB, and 8 GB SODIMMs
Maximum
16384MB

NOTE: Due to the non-industry standard nature of some third-party memory modules, we recommend HP branded memory to ensure compatibility. If you mix memory speeds, the system will perform at the lower memory speed. With Windows Starter 32-bit operating systems, the amount of usable memory is dependent upon your configuration, so that above 3 GB all memory may not be available due to system resource requirements.

NETWORKING/COMMUNICATIONS

Wireless
Support for a broad range of secure, integrated wireless LAN and wireless WAN options featuring support for the latest industry standards. Broadband Wireless (WWAN) requires a Windows operating system and is available in select countries as a standard, factory configurable feature only. Integrated Bluetooth is also available (factory configurable only) and can be combined with any of the supported wireless LAN and wireless WAN options.

Mobile Broadband options (Win 8 WWAN support will not be available at Win 8 introduction)
HP hs2350 HSPA+ Mobile Broadband Module
HP un2430 EV-DO/HSPA Mobile Broadband Module
HP lt2522 LTE/EV-DO Mobile Broadband Module - U.S. only
HP lt2523 LTE/HSPA+ Mobile Broadband Module - U.S./Canada only (no Win 8 support)
All 802.11 integrated wireless LAN options
Intel® Centrino Advanced-N 6205 (2x2)
Intel® 802.11a/b/g/n 2x2 with Bluetooth® v4.0 combo
Atheros 802.11a/b/g/n 2x2 with Bluetooth® v4.0 combo
Broadcom 801.11b/g/n 1x1 with Bluetooth® v4.0 combo
HP Integrated Module with Bluetooth 4.0+EDR Wireless Technology

Features

Communications

Integrated Intel® 82579LM Gigabit* Network Connection (vPro configurations)*

* The term "10/100/1000" or "Gigabit" Ethernet indicates compatibility with IEEE standard 802.3ab for Gigabit Ethernet, and does not connote actual operating speed of 1 Gb/s. For high-speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

AUDIO/MULTIMEDIA

Audio

SRS Premium Sound PRO™
Integrated stereo speakers
Integrated dual-microphone array
Button for volume mute; function keys for volume up and down
Combo headphone/microphone jack

Webcam

Optional 720p HD webcam

- HD format (widescreen)
- Supports videoconferencing and still image capture
- High quality fixed focus lens
- Video capture at various resolutions up to 1280x720 resolution (720p) and up to 30fps
- M-JPEG compression supports higher frame rates for video capture and videoconferencing
- Improved low light sensitivity
- Improved dynamic range

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard

The HP spill-resistant keyboard is designed using a thin layer of Mylar film under the keyboard and a drain system that funnels fluid through a hole in the bottom of the notebook. This minimizes the risk of damage to sensitive components underneath. The 101/102-key compatible keyboard features an industry standard, full-pitch key layout with desktop keyboard features, such as the isolated inverted-T cursor control keys, editing keys, both left and right control and alt keys, and 12 function keys. U.S. and International key layouts are available. Other features include an integrated numeric keypad, hotkeys for instant access to power conservation, brightness, and other features, 19 mm x 19 mm key pitch (center-to-center spacing), 2.0 mm stroke, and comfort-dished keycaps.

Backlit Keyboard

The standard backlit keyboard for low light environments is toggled on and off with a function key.The standard backlit keyboard for low light environments is toggled on and off with a function key.

Pointing Devices

Touchpad with gestures support, on/off button with LED indicator, two-way scroll, two pick buttons

SOFTWARE AND SECURITY

Preinstalled Software with Windows Operating System

HP Peak Power Manager* (web only)
HP Power Assistant (Windows 7 only)
Cyberlink Media Suite for Win 8
HP Wireless Hotspot (Win 8 web download only)

Features

HP Recovery Manager
HP Support Assistant
Buy Office
Adobe® Flash Player (Windows 7 only)
Corel WinDVD (select Windows 7 models)
Roxio Secure Burn (select Windows 7 models)
Roxio MyDVD Business 2010 (select Windows 7 models)
PDF Complete Corporate Edition
WinZip Basic (Windows 7 only)
Skype ready**

*HP Peak Power Manager replaces HP Power Assistant for both Win7 and Win8. HP Peak Power Manager will be available on the web for download for existing product owners.
** Internet access required.

Security

Standard
Digital Pass (Windows 7 only
HP Client Security (Windows 8 only)
HP ProtectTools Security Manager (standard modules include)

- Credential Manager
- Central Management capable*
- Computrace** Pro
- Device Access Manager
- Drive Encryption (will be web-only ready at Win8 GA date)
- Face Recognition (webcam configurations only)

Microsoft Defender (Windows 8 only)
Microsoft Security Essentials (included with Microsoft Defender for Windows 8)
One Step Logon
Password Manager
Privacy Manager (Windows 7 only)
SpareKey
Smart Card Reader
TPM 1.2 Embedded Security Chip***
Security lock slot
Support for Intel® AT****

Optional
HP Fingerprint Sensor
* In order to deploy and receive updated policies, the client needs to be connected to the network server and requires separately purchased DigitalPersona Pro software. System access may not prevent users from logging into the system on the first attempt if policy updates haven't yet been received and applied. Requires Microsoft Windows.
** Computrace agent is shipped turned off, and must be activated by customers when they purchase a subscription. Subscriptions can be purchased for terms ranging from one to five years. Service is limited, check with Absolute for availability outside the U.S.
*** TPM module disabled where use is restricted by law, for example, Russia and China.
For more information on HP security solutions refer to: http://www.hp.com/products/security.
**** Intel® AT security requires a separately purchased Absolute Computrace service subscription and must be activated and configured. Check with Absolute for availability in your country. Intel® and HP assume no liability for lost or stolen data and/or systems or any other damages resulting therefrom. See http://www.intel.com/technology/anti-theft/

Features

For more information on HP security solutions refer to: http://www.hp.com/go/security

POWER

Power Supply

External 65-watt HP Smart AC Adapter
External 65-watt Slim AC adapter
Power cord included is 6-foot (1.8 meter).
Total length including external AC adapter is 12 feet (3.66 meter).
HP Fast Charge

Primary Battery

HP 6-cell Prismatic Battery (48 WHr)
HP 4-cell Prismatic Battery (30 WHr)

Battery Life*

HP EliteBook 2170p (Hard Drive)

6-cell (48 WHr)	Up to 8 hours and 15 minutes
4-cell (30 WHr)	Up to 4 hours and 30 minutes

HP EliteBook 2170p (Solid State Drive)

6-cell (48 WHr)	Up to 10 hours
4-cell (30 WHr)	Up to 5 hours and 30 minutes

System Standby Time

Up to 2 weeks

*Battery life will vary depending on the product model, configuration, loaded applications, features, use, wireless functionality and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See MobileMark07 battery benchmark http://www.bapco.com/products/mobilemark2007 for additional details.

Power Conservation

Hibernation
Standby
ACPI compliance

ENVIRONMENTAL

US ENERGY STAR®
IT ECO Declaration
EPEAT – Gold where HP registers commercial notebook products. See http://www.epeat.net for registration status in your country.

NOTE: This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks.

Features

WEIGHTS & DIMENSIONS

Weight
Starting at 2.94 lbs (1.33 kg) (with 4-cell battery)
Starting at 3.12 lbs (1.42 kg) (with 6-cell battery)

Dimensions (w x d x h)
11.50 x 7.56 x 1.04 in (at front)
29.2 x 19.2 x 2.65 cm (at front)

NOTE: Height varies depending upon where on the notebook the measurement is made. Weight varies by configuration and components. Lowest weight includes 4-cell battery, hard drive, 1 SODIMM, no WWAN and no fingerprint sensor. Weight varies by configuration and components.

PORTS/SLOTS

Ports
DisplayPort 1.1a – One
VGA – One
RJ-45 (Ethernet) – One
Headphone/Microphone Combo Jack – One
Power Connector – One
Docking Connector – One
USB 3.0 – One
USB 3.0 Charge Port – One

Digital Media Slots
5 in 1 Secure Digital Slot

SERVICE AND SUPPORT

HP Services offers limited 3 year and 1 year warranty options depending on country;
1 year limited warranty on primary battery; 3 year limited warranty on HP Long Life Battery (only available with 3 year platform warranty). On-site service and warranty upgrades are also available. HP Care Pack Services extend service contracts beyond the standard warranties. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: http://www.hp.com/go/lookuptool. Additional HP Care Pack Services information by product is available at: http://www.hp.com/hps/carepack.

NOTE: Certain restrictions and exclusions apply. Consult the HP Customer Support Center for details.
http://h20000.www2.hp.com/bizsupport/TechSupport/ProductRoot.jsp

SYSTEM UNIT

Stand-Alone Power Requirements (AC Power)	**Nominal Operating Voltage**	18.5 V	
	Average Operating Power	Windows 7 (32-bit)	Windows 7 (64-bit)
		7.45 W	6.03 W
	Max Operating Power	< 65 W	
Temperature	**Operating**	32° to 95° F (0° to 35° C) (not writing optical) 41° to 95° F (5° to 35° C) (writing optical)	
	Non-operating	-4° to 140° F (-20° to 60° C)	
Relative Humidity	**Operating**	10% to 90%, non-condensing	
	Non-operating	5% to 95%, 101.6° F (38.7° C) maximum wet bulb temperature	
Shock	**Operating**	40 G, 2 ms, half-sine	
	Non-operating	200 G, 2 ms, half-sine	
Random Vibration	**Operating**	0.75 grms	
	Non-operating	1.50 grms	
Altitude (unpressurized)	**Operating**	-50 to 10,000 ft (-15.24 to 3,048 m)	
	Non-operating	-50 to 40,000 ft (-15.24 to 12,192 m)	
Planned Industry Standard Certifications	**UL**	Yes	
	CSA	Yes	
	FCC Compliance	Yes	
	ENERGY STAR®	Select models*	
	EPEAT	Registered Gold in United States**	
	ICES	Yes	
	Australia / NZ A-Tick Compliance	Yes	
	CCC	Yes	
	Japan VCCI Compliance	Yes	
	KC	Yes	
	BSMI	Yes	
	CE Marking Compliance	Yes	
	BNCI or BELUS	Yes	
	CIT	Yes	
	GOST	Yes	
	Saudi Arabian Compliance (ICCP)	Yes	
	SABS	Yes	
	UKRSERTCOMPUTER	Yes	

Technical Specifications

* Configurations of the HP EliteBook 2170p that are ENERGY STAR qualified are identified as HP EliteBook 2170p ENERGY STAR on HP websites and on www.energystar.gov.
** EPEAT registration varies by country. See www.epeat.net for registration status by country.
EPEAT status listed above applies to U.S.

For accessibility information on HP products, please visit: http://www.hp.com/accessibility.

DISPLAY

11.6-inch LED HD (1366 x 768) Anti-glare	**Active Area**	9.88 x 5.67 in (25.61 x 14.40 cm)	
	Dimensions (W x H)	11.53 x 6.49 in (29.3 x 16.5 cm)	
	Diagonal Size	11.6 in (29.46 cm)	
	Surface Treatment	Anti-glare	
	Contrast Ratio	300:1 (typical)	
	Refresh Rate	60 Hz	
	Brightness	200 nit (typical)	
	Pixel Resolution	**Format**	1366 x 768
		Configuration	RGB Stripe
	Backlight	LED	
	Viewing Angle	40/40/15/30 (Left/Right/Down/Up) (typical)	

STORAGE AND DRIVES

Internal Storage

500 GB 7200 rpm SATA Hard Drive	**Drive Weight**	0.25 lbs (115g)	
	Capacity	500 GB	
	Height	0.37 in (9.5 mm)	
	Width	2.75 in (70 mm)	
	Interface	ATA-8, SATA 2.6, 3.0 Gb/s, NCQ	
	Transfer Rate	**Synchronous** (maximum)	300 MB/s (Drive Capability)
	Seek Time (typical reads, including settling)	**Single Track**	1.5 ms
		Average	11 ms
		Maximum	22 ms
	Rotational Speed	7200 rpm	
	Logical Blocks	976,773,168	
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]	
	Features	ATA Security	

Technical Specifications

500 GB 7200 rpm SMART SATA II Self Encrypting Drive	**Drive Weight**	0.25 lbs (115g)	
	Capacity	500 GB	
	Height	0.37 in (9.5 mm)	
	Width	2.50 in (63.5 mm)	
	Interface	ATA-8, SATA 2.6, 3.0 Gb/s	
	Transfer Rate	**Synchronous** (maximum)	300 MB/s (Drive Capability)
	Seek Time (typical reads, including settling)	**Single Track**	1 ms
		Average	12 ms
		Maximum	20 ms
	Rotational Speed	7200 rpm	
	Logical Blocks	976,773,168	
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]	
	Features	ATA Security	
320 GB 7200 rpm SATA Hard Drive	**Drive Weight**	0.25 lbs (115 g)	
	Capacity	320 GB	
	Height	0.37 in (9.5 mm)	
	Width	2.75 in (70 mm)	
	Interface	ATA-8, SATA 2.6, 3.0 Gb/s, NCQ	
	Transfer Rate	**Synchronous** (maximum)	300 MB/s (Drive Capability)
	Seek Time (typical reads, including settling)	**Single Track**	1.5 ms
		Average	11 ms
		Maximum	22 ms
	Rotational Speed	7200 rpm	
	Logical Blocks	625,142,448	
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]	
	Features	ATA Security	

Technical Specifications

SATA 6 Gb/s 256 GB, 2.5-inch SATA SED Solid State Drive	**Drive Weight**	73 Grams	
	Capacity	256 GB	
	Height	0.276 in (7 mm)	
	Width	2.76 in (70 mm)	
	Interface	SATA 3 (6 Gb/s)	
	Performance	**Maximum Sequential Read**	**Maximum Sequential Write**
		Up to 460 MB/s	Up to 260 MB/s
	Logical Blocks	500,118,192	
	Operating Temperature	32° to 158°F (0° to 70°C) [case temp]	
	Features	ATA Security; ATA-8 compliant; SATA 3.0; DIPM; TRIM	
SATA 6 Gb/s 240 GB, 2.5-inch Solid State Drive	**Drive Weight**	78 Grams	
	Capacity	240 GB	
	Height	0.276 in (7 mm)	
	Width	2.76 in (70 mm)	
	Interface	SATA Gen 3 (6 Gb/s)	
	Performance	**Maximum Sequential Read**	**Maximum Sequential Write**
		550 MB/s	520 MB/s
	Logical Blocks	468,862,128	
	Operating Temperature	32° to 158°F (0° to 70°C) [case temp]	
	Features	ATA Security; ATA-8, SATA 3.0; DIPM; TRIM	
SATA 6 Gb/s 180 GB, 2.5-inch Solid State Drive	**Drive Weight**	78 Grams	
	Capacity	180 GB	
	Height	0.276 in (7 mm)	
	Width	2.76 in (70 mm)	
	Interface	SATA Gen 3 (6 Gb/s)	
	Performance	**Maximum Sequential Read**	**Maximum Sequential Write**
		550 MB/s	520 MB/s
	Logical Blocks	351,651,888	
	Operating Temperature	32° to 158°F (0° to 70°C) [case temp]	
	Features	ATA Security; ATA-8, SATA 3.0; DIPM; TRIM	

Technical Specifications

SATA 6 Gb/s 128 GB, 2.5-inch Solid State Drive	**Drive Weight**	73 Grams	
	Capacity	128 GB	
	Height	0.276 in (7 mm)	
	Width	2.76 in (70 mm)	
	Interface	SATA 3 (6 Gb/s)	
	Performance	**Maximum Sequential Read**	**Maximum Sequential Write**
		415 MB/s	175 MB/s
	Logical Blocks	250,069,680	
	Operating Temperature	32° to 158°F (0° to 70°C) [case temp]	
	Features	ATA Security; ATA-8; SATA 3.0 DIPM; TRIM	

NETWORKING/COMMUNICATIONS

Intel® 82579LM Gigabit Network Connection	**Ethernet Features**	10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14) 100 10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14) 100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30) 1000 Mbti/s operation (1000BASE-T; IEEE 802.3ab; IEEE 8023. Clauses 40) Auto-Negotiation (Automatic Speed Selection) Full Duplex Operation at all Speeds, Half Duplex operation at 10 and 100 Mbit/s IEEE 802.1p QoS (Quality of Service) Support IEEE 802.1q VLAN support IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable) IEEE 802.3az EEE(Energy Efficient Ethernet) Jumbo Frame 9K Auto MDI/MDIX Crossover cable detection
	Power Management	ACPI compliant - multiple power modes Energy Detect Low Power Mode(Green Ethernet)
	Performance Features	TCP/IP/UDP Checksum Offload (configurable) Protocol Offload(ARP & NS) Large send offload and Giant send offload Receiving Side Scaling MACSec Offload (802.3ae) Intel vPro iSCSI Boot
	Manageability	Wake-on-LAN from standby and hibernation (Magic Packet and Microsoft Wake-Up Frame); Wake-on-LAN from off (Magic Packet only) PXE 2.1 Remote Boot Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30)) Comprehensive diagnostic and configuration software suite Virtual Cable Doctor for Ethernet cable status

	Interface	PCI Express 1.1 x1 to fully support ASPM L0s/L1 and CLKREQ. **NOTE:** Intel 82579 PCIe interface is not PCIe compliant. It operates at half of PCIe specification V1.1 (2.5GT/S) speed.
	NIC Device Driver Name	Intel 82579LM/82579V Ethernet Network Connection
HP un2430 EV-DO/HSPA Mobile Broadband Module	**Technology/Operating Bands**	GSM/GPRS/EDGE: 850MHz(Cell), 900MHz(EGSM), 1800MHz(DCS), 1900MHz (PCS) UMTS/WCDMA with receive diversity: 2100MHz (UTRA FDD Band I), 1900MHz (UTRA FDD Band II), AWS (UTRA FDD Band IV), 900MHz(UTRA FDD Band VIII), 850MHz (UTRA FDD Band V) 1xEVDO/1xRTT with receive diversity: 850MHz (Band Class0-Cell), 1900MHz (Band Class1-PCS)
	Wireless Protocol Standards	GSM/GPRS/EDGE: Class A, Multi-slot class 10 operation, coding schemes CS1 - CS4 and MSC1 - MSC9. UMTS/WCDMA: Release 99 and Release 6 CDMA: 1xEVDO Release 0 and Release A, IS-95A, IS-95B, IS-856, IS-2000
	Wireless Parametric Standards	Meets or exceeds TIA/EIA IS-98-D
	Maximum Data Rates	UMTS (HSPA) - 14.4 Mbps (Download), 5.76Mbps (Upload) CDMA (EVDO Release A) - 3.1 Mbps (Download), 1.8Mbps (Upload)
	GPS	Standalone GPS enabled gpsOneXTRATM™
	GPS Bands	L1 - 1575.42 MHz
	Maximum Output Power	GSM/GPRS/EDGE: 32dBm (+/-1) WCDMA: 24dBm (+0.7/-2.3) CDMA: 24dBm (+0.7/-2)
	Maximum Power Consumption	2750mA (peak); 1100mA (average)
	Power Consumption, Idle Not Connected	20 mA
	Power Management	USB selective suspend Integrated notebook wireless button
	Antenna Type	Dual high efficiency 5 band antennae with spatial diversity, mounted in the display enclosure
	Form Factor	PCI-Express MiniCard, USB 2.0 interface
	Weight	11.5 g
	Dimensions (Length x Width x Thickness)	2.01 x 1.18 x 0.18 in (51 x 30 x 5 mm)
	Voltage, Operating	3.3v +/- 10%
	Temperature, Operating (from TIA/EIA/IS-98-D)	-22° to 158° F (-30° to 70° C) (full RF performance) -22° to 167° F (-30° to 75° C) (reduced RF performance)
	Temperature, Non-operating, 96 hours (from MIL-STD 202 Method 108)	-40° to 185° F (-40° to 85° C)

	Humidity, Non-operating	95% relative humidity for 48 hours @ 185° F (85° C) (non-condensing)
	Configuration Utilities	HP Connection Manager
	LED Activity	LED Off - Radio Off; Solid LED On - Radio On
Intel Centrino Advanced-N 6205 (2x2)	**Wireless LAN Standards**	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n
	Interoperability	Wi-Fi certified Cisco Compatible Extensions Program compliant with Microsoft Windows 7, Windows Vista and XP (details at: http://www.hp.com/go/notebooks/WLAN)
	Frequency Band	2.4 GHz and 5GHz
	Antenna Structure	2 transmit; 2 receive (2x2)
	Data Rates	802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: 66 possible data rates, ranging from 6 Mbps to 300 Mbps, depending on the combination of Bandwidth, Modulation Coding Scheme, and Guard Interval used, as defined in IEEE 802.11n specification
	Modulation	Direct Sequence Spread Spectrum DBPSK, DQPSK, CCK, OFDM, BPSK, QPSK, 16-QAM, 64-QAM
	Security[1]	Authentication: WPA and WPA2, 802.1x (EAP_TLS, TTLS, PEAP, LEAP, EAP-FAST) Authentication Protocols: PAP, CHAP, TLS, GTC, MS-CHAP, MS-CHAPv2 Encryption: 64 and 128-bit WEP, AES-CCMP, CKIP, TKIP Support for Cisco Security Features (proven compatibility with Cisco Aironet infrastructure products through the Cisco Compatible Extensions Program Version 4) with Microsoft Windows Vista and XP only.
	Sub-channels	Multinational support with frequency bands and channels compliant to local regulations.
	Media Access Protocol	CSMA/CA (Collision Avoidance) with ACK
	Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
	Roaming	IEEE 802.11 compliant roaming between 2.4GHz band Access Points
	Output Power (for CCK and OFDM)[2]	17 dBm max
	Power Consumption	Transmit: 2.3 Watts (max, with two spatial streams) Receive: 1 Watt (max with two spatial streams) Idle mode[3]: 35 mW (average) Radio off: 20 mW (max)
	Power Management	ACPI compliant power management 802.11 compliant power saving mode

Technical Specifications

Receiver Sensitivity[4]	54 Mbps: -76 dBm, 6 Mbps: -92 dBm	
Antenna Connections	2 U.FL type connectors, 50 ohm nominal impedance	
Form Factor	PCI-Express Half-MiniCard	
Weight	0.0075 lb (3.4 g)	
Dimensions	0.12 x 1.06 x 1.18 in (3.1 x 26.8 x 30.0 mm)	
Operating Voltage	3.3V +/- 9%	
Temperature	Operating Non-operating	32° to 176° F (0° to 80° C) -40° to 176° F (-40° to 80° C)
Humidity	Operating Non-operating	10% to 90% (non-condensing) 5% to 90% (non-condensing)
Altitude	Operating Non-operating	0 to 10,000 ft (3,048 m) 0 to 50,000 ft (15,240 m)
LED Activity	LED Off - Radio OFF; Solid LED On - Radio ON	

1. Check latest software/driver release for updates on supported security features.
2. Maximum output power may vary by country according to local regulations.
3. In Power Save Polling mode and on battery power.
4. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CCK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).
5. WLAN supplier's client utility is required for Cisco Compatible Extensions support with Microsoft Windows XP. WLAN may also be compatible with certain third-party software supplicants. WLAN supplier IHV extensions required for Cisco Compatible Extensions support for Microsoft Windows Vista.

Intel Centrino Advanced - N 6235 802.11a/g/n (2x2) Bluetooth v4.0 Combo Adaptor

Wireless LAN Standards	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n
Interoperability	Wi-Fi certified Cisco Compatible Extensions Program compliant with Microsoft Windows 7 (details at: http://www.hp.com/go/notebooks/WLAN)
Frequency Band	2.4 GHz and 5 GHz
Data Rates	802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: 300 Mbps
Modulation	Direct Sequence Spread Spectrum DBPSK, DQPSK, CCK, OFDM, BPSK, QPSK, 16-QAM, 64-QAM
Security	Supports 64- and 128-bit WEP, WPA, WPA2, hardware-accelerated AES, 802.1x authentication types EAP-TLS, EAP-TTLS, PEAP, LEAP, and EAP-FAST. Support for Cisco Security Features (proven compatibility with Cisco Aironet infrastructure products through the Cisco Compatible Extensions Program Version 5) with Microsoft Windows 7.
Sub-channels	Multinational support with frequency bands and channels compliant to local regulations.
Media Access Protocol	CSMA/CA (Collision Avoidance)

Technical Specifications

	Network Architecture	Ad-hoc (Peer to Peer)	
	Models	Infrastructure (Access Point Required)	
	Roaming	IEEE 802.11 compliant roaming between access points	
	Output Power	13.5 dBm , nominal	
	Power Consumption	Idle associated: 250 mW Idle unassociated: 100 mW Radio disabled: 75mW Transmit: 2.0 W (max) Receive: 1.6 W (max)	
	Power Management	ACPI compliant power management 802.11 compliant power saving mode	
	Receiver Sensitivity	54 Mbps: -74 dBm, 11 Mbps: -88 dBm , 1 Mbps: -95 dBm	
	Antenna type	High efficiency dual band antenna with spatial diversity, mounted in the display enclosure	
	Form Factor	PCI-Express Half-MiniCard 1.2	
	Weight	0.008 lb (3.7 g)	
	Dimensions	1.06 x 1.18 x 0.19 in (26.80 x 30.00 x 4.75 mm)	
	Operating Voltage	3.3v +/- 10%	
	Temperature	Operating	14° to 158° F (-10° to 70° C)
		Non-operating	-40° to 176° F (-40° to 80° C)
	Humidity	Operating	10% to 90% (non-condensing)
		Non-operating	5% to 95% (non-condensing)
	Altitude	Operating	0 to 10,000 ft (3,048 m)
		Non-operating	0 to 50,000 ft (15,240 m)
	LED Activity	Amber LED - Radio OFF; White LED - Radio ON	
Bluetooth 4.0 Wireless Technology	**Bluetooth Specification**	2.1+EDR, 3.0+HS, 4.0 Compliant	
	Dimensions	1.06 x 1.18 x 0.19 in (26.80 x 30.00 x 4.75 mm)	
	Frequency Band	2402 to 2480 MHz	
	Number of Available Channels	79 (1 MHz) available channels	
	Data Rates and Throughput	3 Mbps data rate; throughput up to 2.17 Mbps Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Asynchronous Connection Less links 2.17 Mbps/177.1 kbps asymmetric or 1306.9 kbps symmetric	
	Transmit Power	Max 4 dBm (Bluetooth Class II); Max +10 dBm (Bluetooth 4.0)	
	Receiver Sensitivity	Better than -80 dBM at 0.1 % raw bit error rate	
	Power Consumption	Receive 230mW Peak Operating 330mW USB Selective Suspend 17mW	
	Antenna	High efficiency dual band antenna with spatial diversity, mounted in the display enclosure	

Technical Specifications

Range	Up to 30 ft (9.14 m)	
Electrical Interface	USB 2.0 compliant Microsoft Windows Plug and Play compliant	
Bluetooth Software Supported	Motorola Bluetooth for Windows Microsoft Windows Bluetooth Software	
Link Topology	Point to Point, Multipoint Pico Nets up to 7 slaves	
Security	Full support of Bluetooth Security Provisions	
Power Management	Microsoft Windows ACPI, and USB Bus Support Self configurable to optimize power conservation in all operating modes, including Standby, Hold, Park, and Sniff	
Certifications	All necessary regulatory approvals for supported countries, including: FCC (47 CFR) Part 15C, Section 15.247 & 15.249 ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 UL, CSA, and CE Mark	
Temperature	Operating	14° to 158° F (-10° to 70° C)
	Non-operating	-40° to 176° F (-40° to 80° C)
Humidity	Operating	10% to 90%
	Non-operating	5% to 95%
Altitude	Operating	10,000 ft (3,048 m)
	Non-operating	50,000 ft (15,240 m)
Bluetooth Profiles Supported	Serial Port Profile (SPP)[1] Service Discovery Applicaton Profile (SDAP) Dial-Up Networking (DUN)[1,2] Generic Object Exchange Profile (GOEP)[1,2] Object Push Profile (OPP)[1,2] File Transfer Profile (FTP) Synchronization Profile (SYNC) Hard Copy Cable Replacement (HCRP)[1,2] Personal Area Networking Profile (PAN)[1,2] Human Interface Device Profile (HID)[1,2,3] FAX Profile (FAX) Basic Imaging Profile (BIP)[2] Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP)	

HP Integrated Module with Bluetooth 4.0+EDR Wireless Technology	**Bluetooth Specification**	4.0+EDR Compliant
	Dimensions	1.18 x 0.26 x 0.13 in (30 x 6.5 x 3.25 mm)
	Frequency Band	2402 to 2480 MHz
	Number of Available Channels	79 (1 MHz) available channels

Technical Specifications

Data Rates and Throughput	3 Mbps data rate; throughput up to 2.17 Mbps	
	Synchronous Connection Oriented links up to 3, 64 kbps, voice channels	
	Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric or 1306.9 kbps symmetric	
Transmit Power	-1.5 dBm to 4 dBm (Bluetooth Class II)	
Receiver Sensitivity	Better than -20 dBM at 0.1 % raw bit error rate	
Power Consumption	Peak (Tx) 264 mW	
	Peak (Rx) 231 mW	
	Sleep <1 mW	
Antenna	Internally integrated within module	
Range	Up 33 ft (10 m)	
Electrical Interface	USB 2.0 compliant	
	Microsoft Windows Plug and Play compliant	
Bluetooth Software Supported	Broadcom Bluetooth for Windows	
	Microsoft Windows Bluetooth Software	
Link Topology	Point to Point, Multipoint Pico Nets up to 7 slaves	
Security	Full support of Bluetooth Security Provisions	
Power Management	Microsoft Windows ACPI, and USB Bus Support	
	Self configurable to optimize power conservation in all operating modes, including Standby, Hold, Park, and Sniff	
Certifications	All necessary regulatory approvals for supported countries, including:	
	FCC (47 CFR) Part 15C, Section 15.247 & 15.249	
	ETS 300 328, ETS 300 826	
	Low Voltage Directive IEC950	
	UL, CSA, and CE Mark	
Temperature	Operating	-14° to 158° F (-10° to 70° C)
	Non-operating	-40° to 212° F (-40° to 100° C)
Humidity	Operating	0% to 90%
	Non-operating	0% to 95%
Altitude	Operating	15,000 ft (4,572 m)
	Non-operating	40,000 ft (12,192 m)
Bluetooth Profiles Supported	Serial Port Profile (SPP)[1]	
	Service Discovery Application Profile (SDAP)	
	Dial-Up Networking (DUN)[1,2]	
	Generic Object Exchange Profile (GOEP)[1,2]	
	Object Push Profile (OPP)[1,2]	
	File Transfer Profile (FTP)	
	Synchronization Profile (SYNC)	
	Hard Copy Cable Replacement (HCRP)[1,2]	
	Personal Area Networking Profile (PAN)[1,2]	
	Human Interface Device Profile (HID)[1,2]	

FAX Profile (FAX)
Basic Imaging Profile (BIP)[2]
Headset Profile (HSP)
Hands Free Profile (HFP)
Advanced Audio Distribution Profile (A2DP)

1. indicates the profile is supported by Microsoft Windows XP SP2
2. indicates the profile is part of Windows Vista

AUDIO/MULTIMEDIA

Audio	**SRS Premium Sound™ PRO**	
Hardware	**Implementation**	IDT 92HD80 High Definition CODEC
	Function Key Volume Controls	Volume up, volume down
	Mute Button	Volume mute button with LED indicator
	Full Duplex	Yes
	Microphone In	Stereo
	Headphone/Line Out	Stereo
	Integrated Microphone	Yes, dual digital microphone array
Audio Output Quality	**Frequency Response**	20 Hz - 20 kHz
	Signal to Noise Ratio	>85 dB
	Total Harmonic Distortion	0.01%
	Noise Floor	-110 dB
	Play/Record Sampling Rate(s)	8 kHz - 48kHz
	DAC	16, 20 or 24-bit
	ADC	16 or 20-bit
Internal Stereo Speaker	**Power Rating**	2 Watts
	Impedance	4 ohms

POWER

Technical Specifications

HP 65W Smart AC Adapter	**Dimensions**	4.17 x 1.85 x 1.1 in (10.6 x 4.7 x 2.8 cm)	
	Weight	0.62 lb (280 g)	
	Input	100 to 240 VAC	
		Input Efficiency	87% min at 115 VAC
		Input frequency range	47 to 63 Hz
		Input AC current	1.7 A at 90 VAC, 0.85 A at 180 VAC
	Output	**Output power**	65W
		DC output	18.5V
		Hold-up time	5 msec at 115 VAC input
		Output current limit	<11A, Over voltage protection- 29V max automatic shutdown
	Connector	3 pin/grounded, mates with interchangeable cords	
	Environmental Design	**Operating temperature**	32° to 104° F (0° to 40° C)
		Non-operating (storage) temperature	-4° to 149° F (-20° to 65° C)
		Altitude	0 to 10,000 ft (0 to 3,048 m)
		Humidity	20% to 80%
		Storage Humidity	10% to 90%
	EMI and Safety Certifications	CE Mark - full compliance with LVD and EMC directives; Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE; MTBF - over 200,000 hours at 25°C ambient condition.	
HP 4-cell (45 WHr) Lithium-Ion Primary battery	**Dimensions** (h x w x l)	0.6 x 2.1 x 8.1 in (1.4 x 5.2 x 20.6 cm)	
	Weight	0.44 lb (0.199 kg	
	Cells/Type	4-cell Lithium-Ion	
	Energy Temperature	**Watt-hour capacity**	45 WHr
		Operating (Charging)	32° to 113° F (0° to 45° C)
		Operating (Discharging)	14° to 122° F(-10° to 50° C)
		Non-operating	-4° to 122° F (-20° to 50° C)
	Battery Re-Charge Time	**System in OFF or Standby Mode**	2.5 hours
		System ON	3 to 5 hours
	Warranty	**1 year**	

Technical Specifications

HP 4-cell Prismatic Battery (30 WHr)	**Dimensions** (h x w x l)	0.6 x 2.1 x 8.1 in (1.3 x 4.5 x 22.2 cm)	
	Weight	0.44 lb (210g)	
	Cells/Type	4-cell Lithium-Ion	
	Energy	**Voltage**	14.8V
		Amp-hour capacity	2.0Ah
		Watt-hour capacity	30 WHr
	Temperature	**Operating (Charging)**	32° to 113° F (0° to 45° C)
		Operating (Discharging)	14° to 122° F(-10° to 50° C)
		Non-operating	-4° to 122° F (-20° to 50° C)
	Battery Re-Charge Time	**System in OFF or Standby Mode**	2.5 hours
		System ON	3 to 5 hours
	Warranty	**1 year**	

ENVIRONMENTAL

Environmental Data

Eco-Label Certifications This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

US Energy Star ®
IT ECO declaration
EPEAT Gold where HP registers commercial desktop products. See http://www.epeat.net for registration status in your country US Federal Energy Management Program (FEMP)

System Configuration The configuration used for the Energy Consumption and Declared Noise Emissions data is based on a "Typically Configured Notebook"

Energy Consumption	**115 VAC**	**230 VAC**	**100 VAC**
Normal Operation	8.47 W	9.23 W	8.54 W
Sleep (Energy Star low power mode)	1.02 W	1.19 W	1.01 W
Off	0.66 W	0.77 W	0.61 W

Heat Dissipation*	**115 VAC**	**230 VAC**	**100 VAC**
Normal Operation	29 BTU/hr	31 BTU/hr	29 BTU/hr
Sleep	3 BTU/hr	4 BTU/hr	3 BTU/hr
Off	2 BTU/hr	2 BTU/hr	2 BTU/hr

* Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Declared Noise Emissions (in accordance with

ISO 7779 and ISO 9296)

System Fan Off	Sound Power (LWAd, bels)	Sound Pressure (LpAm, decibels)
Idle	3.3	25
Fixed Disk (random writes)	3.4	27

System fan is usually off except when charging the battery

Batteries

This battery(s) in this product comply with EU Directive 2006/66/EC

Batteries used in the product do not contain:

- Mercury greater the 5ppm by weight
- Cadmium greater than 10ppm by weight

The battery type and chemistry used in the product is:

CR2032 (coin cell), Li-ion
6-cell high capacity Lithium-Ion battery (optional 8 cell available)

Additional information

This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2002/95/EC.

This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive - 2002/96/EC.

This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).

This product is in compliance with the IEEE 1680 (EPEAT) standard at the Gold level, see www.epeat.net

Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.

This product contains 0% post consumer recycled plastic (by wt.)

This product is greater than 90.8% recycle-able when properly disposed of at end of life.

Packaging Materials

- External:
  - PAPER/Corrugated 432 g
- Internal:
  - PLASTIC/Polyethylene low density 19.5 g
  - PLASTIC/EPE-Expanded Polyethylene 36 g
  - OTHER/OTHER 20 g
  - PLASTIC/PET 1.5
- The PAPER/Corrugated packaging material is made from 1% recycled content.
- The PLASTIC/Polyethylene low density packaging material is made

from 1% recycled content.
- The PLASTIC/EPE-Expanded Polyethylene packaging material is made from 1% recycled content.
- The OTHER/OTHER packaging material is made from 1% recycled content.
- The PLASTIC/PET packaging material is made from 1% recycled content.

HP follows these guidelines to decrease the environmental impact of product packaging:

- Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.
- Eliminate the use of ozone-depleting substances (ODS) in packaging materials.
- Design packaging materials for ease of disassembly.
- Maximize the use of post-consumer recycled content materials in packaging materials.
- Use readily recyclable packaging materials such as paper and corrugated materials.
- Reduce size and weight of packages to improve transportation fuel efficiency.
- Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

MATERIAL USAGE

This product does not contain any of the following substances in excess of regulatory limits (for reference of these limits please refer to the HP General Specification of the Environment (http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants – may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances

- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)
- Nickel finishes that release greater than 0.5 µgrams/cm^2/week, measured according to EN 1811:1998, are not used on any product surface designed to be frequently handled or touched by users.

END-OF-LIFE MANAGEMENT AND RECYCLING

Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

HEWLETT-PACKARD CORPORATE ENVIRONMENTAL INFORMATION

For more information about HP's commitment to the environment:

Global Citizenship Report
http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html
Environment website
http://www.hp.com/environment
Eco-label certifications
http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html
ISO 14001 certificates:
http://www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html

Options and Accessories (sold separately and availability may vary by country)

Type	Description	Part #
Memory	HP 2 GB PC3-12800 (DDR3 1600 MHz) SODIMM	H2P63AA#xxx
	HP 4 GB PC3-12800 (DDR3 1600 MHz) SODIMM	H2P64AA#xxx
	HP 8 GB PC3-12800 (DDR3 1600 MHz) SODIMM	H2P65AA#xxx
	NOTE: Full availability of 4 GB or more of memory requires Windows Vista Business 64-bit or Linux. With Windows 32-bit operating systems, the amount of usable memory is dependent upon your configuration, so that above 3 GB all memory may not be available due to system resource requirements.	
Cases	HP Business Slim Top Load Case	H2T13AA
	HP Business Nylon Backpack	BP849AA
Docking	HP 90W Docking Station	A7E32AA
	HP 230W Docking Station	A7E34AA
	HP 120W Advanced Docking Station	A7E36AA
	HP 230W Advanced Docking Station	A7E38AA
	HP Dual Hinge Notebook Stand	AW661AA
	HP Display and Notebook Stand	AW662AA
Input/Output – Mice	HP 2.4 GHz Wireless Optical Mobile Mouse	LX732AA
	HP Wireless Mobile Mouse	H2L63AA
	HP USB Essential Keyboard/Mouse	H2S75AA
Adapters	HP 90W Slim Adapter	BT796AA
	HP 90W Smart AC/Auto/Air Combo Adapter	ED493AA
Power	HP MI06 Battery (2170p)	TBD
Storage - External Storage	HP Mobile USB DVDRW	A2U57AA
Health and Education	HP 20-Notebook Managed Charging Cart	QL489AA
	HP 20-Notebook Charging Cart	QL488AA
	HP 30-Notebook Managed Charging Cart	QL490AA
	HP Pocket Whiteboard	A0X37AA
Security	HP Docking Station Cable Lock	AU656AA

Options and Accessories (sold separately and availability may vary by country)

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